## Prospective Strategies for Sustainable Mitigation of the Impact of Climate Change on Agriculture and Food Security

Consultative Workshop for the West Africa, North Africa and Central Africa Sub-Regions on the African Climate Change Strategy

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## Outline

- Outlook of food insecurity and malnutrition in Africa
- The Challenge to African Agriculture as a Result of Climate Change
- Opportunities for Integration
- Options for Striking a Balance between GHG Mitigation and Resilient Food Systems
- Interventions with Potential Impact on Agriculture & Food Security

## The Grim Picture of African Agriculture

Yields for aggregated commodities in Africa and Asia, 2018



Source: FAO

## The Grim Picture of African Agriculture

Growth in projected yields for selected crops and countries, 2021-2023



Source: OECD/FAO (2021), "OECD-FAO Agricultural Outlook", OECD Agricultural statistics

## **Entrenched Food Insecurity and Malnutrition: The Stats**

Indicator	Trend	Value
Number of Africans that are chronically undernourished	1	250.3 million
Number of Africans experience moderate food insecurity	1	426 million
Number of Africans who experienced food insecurity or hunger and required urgent food assistance	1	73 million
Proportion of African who cannot afford a "nutrient adequate" diet	1	51%
Proportion of African who cannot afford an "energy sufficient" diet	1	11.3%
Source: FAO		

## The Challenge to African Agriculture as a Result of Climate Change

Rising trends in incidences of drought, esp. in Northern and Southern Africa, as a result of rising temperatures

Increased intensity of extreme weather events

Fluctuating rainfall decreasing crop and livestock yields

## **Opportunities for Integration: High Policy Anchoring of "Sustainability"**

### **AU Summit**

Paradigm shift to "sustainable agriculture" in the AU flagship for agriculture sector growth and transformation – CAADP

• 2014 Malabo Declaration stresses enhanced conservation and sustainable use of natural resources through coherent policies

### Global Ambition The centrality of "sustainable development" in the SDGs

• SDG 1: "Zero hunger: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture"

# Ambition #1: "Inclusive growth and sustainable development

• "We aspire that by 2063, Africa shall be a prosperous continent, with the means and resources to drive its own development, with sustainable and long-term stewardship of its resources"

## The Opportunities for Integration: Growing Support for Cutting GHG Emissions

Creation of Global Research Alliance on Agricultural Greenhouse Gases

Growing global and regional shift for climate smart agriculture

CGIAR Research Program on Climate Change, Agriculture, and Food Security (CCAFS)

## Options for Striking a Balance btw GHG Mitigation and Resilient Food Systems

### Demand side: Shift current consumption patterns

- Vigorous mobilization toward consumption of less carbon-intensive diets
- Reductions in food loss and waste

### Supply side: Efficient food production

- Improved and efficient production of inorganic fertilizer vs. use of organic alternatives (e.g. increased use of stored manure)
- Reduction in enteric fermentation emissions from the largest cattle herd through improved rangeland management systems

### Enforcement of regulatory frameworks

- Enforcement of greater transparency and accountability in corporate supply chains
- Incentives for strict compliance to international standards (e.g. UNFCCC and WTO)

#### Improved management and preservation of soil carbon

• Improved maintenance of soil organic matter as a strategy for reducing carbon sequestration

Source: Dickie, et al (2014) Strategies for Reducing Climate Change in Agriculture: Recommendations for Philanthropy. Climate Focus and California Environmental Associates

## Interventions with Potential Impact on Agriculture & Food Security

Crop and Livestock insurance schemes and – social protection strategies

Improvements in production systems

Scaled adaptation of proven strategies

- Drought and other agriculture risk insurance
- Targeted subsidies
- Budget allocations for social protection for conditional cash transfers
- Adjustments in what is planted
- Use of smart and innovative agricultural irrigation technologies
- Increased use of inorganic fertilizers and pest-control substances
- Diversification of livelihoods and food production
- Scaled up implementation and monitoring for results of the Hyogo Framework for Action on DRR

## Thank You